Appl. No. : 10/552,881 Filing Date : July 17, 2006

### **REMARKS**

Claims 36 and 48 have been amended. Claims 51-66 have been withdrawn from consideration as being directed to non-elected inventions. Claims 47 and 70 have been canceled. New claims 71 and 72 have been added. Thus, claims 36-46, 48-69, 71 and 72 are pending in the present application, with claims 36-46, 48-50, 67-69, 71 and 72 currently under consideration. Support for the amendment to claim 36 may be found in the specification, for example at page 8, lines 4-6; and at page 10, lines 24-25. Support for new claim 71 may be found in canceled claim 47. Support for new claim 72 may be found in the specification at page 7, line 33. Thus, no new matter has been added. Reconsideration and withdrawal of the present objection and rejections in view of the remarks presented herein are respectfully requested.

## Claim objections

Claim 70 was objected to under 37 CFR §1.75(c) as being of improper dependent form for allegedly failing to limit the subject matter of a previous claim. Claim 70 has been canceled, thus rendering this objection moot.

Claim 47 was objected to as being improperly dependent on claim 67. Claim 47 has been canceled, and rewritten as new claim 71 which properly depends on claim 67.

In view of the comments presented above, Applicants respectfully request reconsideration and withdrawal of the claim objections.

## Rejection under 35 U.S.C. § 102(b)

The Examiner maintained the rejection of Claims 36-41, 46 and 47 under 35 U.S.C. § 102(b) as allegedly being anticipated by Zhao (WO 00/46253).

In order to a claim to be anticipated by a reference, each element of the claim must be found within the reference. Claim 36 as amended recites that in step (b) the cross-linked polysaccharide is dried <u>under vacuum</u>. In contrast, Zhao teaches <u>air drying</u> the cross-linked polysaccharide under normal atmospheric conditions for 48 hours. Thus, claim 36, as well as claims 37-41 and 46 which depend either directly or indirectly on claim 36, cannot be anticipated by Zhao et al.

Appl. No. : 10/552,881 Filing Date : July 17, 2006

As previously noted, claim 36 recites that the cross-linking step forms a cross-linked polysaccharide having cross-linkages that are of the same functional type, namely, ether bonds. Thus, in the presently claimed process, only **one** type of cross-linkage is formed. This process advantageously results in a cross-linked polysaccharide gel that is resistant to degradation.

In contrast, Zhao teaches a process that requires the formation of <u>at least two different types of cross-linking bonds</u> (e.g., an ester <u>and</u> an ether, amide, imine, or amine – see page 4, lines 9-25; page 5, lines 11-21; page 6; page 7, lines 6-10; page 10, lines 20-25 of Zhao). Furthermore, Zhao teaches that the formation of <u>two or more different types of cross-linking bonds is required to achieve high biostability</u> (see page 4, lines 13-20 and page 13, line 26 to page 14, line 4).

Thus, Zhao does not teach (or suggest) a process for preparing a cross-linked polysaccharide gel that is resistant to degradation, and wherein the cross-linking agent is substantially linked to the polysaccharide by ether bonds, as recited in the present claims. Instead, Zhao teaches the formation of **at least two different cross-linking bonds** in order to produce a cross-linked polysaccharide that exhibits biostability. Accordingly, the present claims are not anticipated by Zhao.

In the final Office Action at page 9, the examiner alleges that "Applicants' remarks continue to be directed to a purported physical property of the composition prepared using the instantly claimed method." However, the recitation in claim 36 of "an essentially cross-linked polysaccharide wherein the cross-linking agent is substantially linked to the polysaccharide by ether bonds" is a positive recitation of a characteristic of a resulting chemical compound, and is clearly a patentable distinction over the compound described by Zhao et al. which has at least two different types of cross-linking bonds.

In view of the comments presented above, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(b).

# Rejection under 35 U.S.C. § 103(a)

Claims 36-50 and 67-69 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Zhao (WO 00/46253) in view of Mälson (WO 87/07898).

Appl. No. : 10/552,881 Filing Date : July 17, 2006

As discussed above, claim 36 as amended recites that the cross-linked polysaccharide is dried under vacuum. Neither Zhao nor Malson disclose or suggest this feature. Thus, the pending claims cannot be obvious over this combination of references.

As further evidence of the nonobviousness of the present claims, enclosed herewith is a Declaration under 37 CFR § 1.132 of Geoffrey Heber, one of the inventors of the present application. The declaration describes studies in which the cross-linked polysaccharide gel produced by the presently claimed process is compared to the gel produced by the process of Zhao et al., in particular Example 6 of this reference. As discussed in the Declaration, the presently claimed process, and resulting product, are significantly different from those of Zhao et al. As noted above, the presently claimed process involves drying the cross-linked polysaccharide under vacuum. As evidenced by the Heber declaration, drying under vacuum unexpectedly results in gels having a robust rheology and excellent visco-elastic properties (Declaration, paragraphs 3-12, 18, 19, 21; Exhibits A-D). In contrast, the process of Zhao, which involves air drying under normal atmospheric conditions (declaration, Exhibit A), results in a cross-linked polysaccharide product which has a very poor gel structure and no visco-elastic properties (declaration, paragraphs 18-22; Exhibits C and D). Thus, the unexpected results obtained upon performance of the presently claimed process are neither disclosed nor suggested by Zhao or Malson, either alone or in combination, could not have been predicted by one of ordinary skill in the art, and strongly support the nonobviousness of the present claims.

In view of the comments presented above, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a).

## No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, the Applicants are not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. The Applicants reserve the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior

Appl. No.

:

10/552,881

**Filing Date** 

July 17, 2006

prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that the Applicants have made any disclaimers or disavowals of any subject matter supported by the present application.

### **CONCLUSION**

Applicants submit that all claims are in condition for allowance. However, if minor matters remain, the Examiner is invited to contact the undersigned at the telephone number provided below. Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: ///8/10

By:

Next & Barrield Ph D

Registration No. 39, 901

Agent of Record

Customer No. 20,995

(619) 235-8550

10000262 111210